

## Solubility Curves

Answer the following questions based on the solubility curve in your reference table. This table is also in your notes in case you do not have a reference table.

1.) Which is least soluble in water at  $20^{\circ}\text{C}$ ?  
\_\_\_\_\_

2.) How many grams of  $\text{KCl}$  can be dissolved in 100g of water at  $80^{\circ}\text{C}$ ?

3.) At  $40^{\circ}\text{C}$ , how much  $\text{KNO}_3$  can be dissolved in 100g of water?

4.) What shows the least change in solubility from  $0^{\circ}\text{C}$  –  $100^{\circ}\text{C}$ ?  
\_\_\_\_\_

5.) At  $30^{\circ}\text{C}$ , 90 g of  $\text{NaNO}_3$  is dissolved in 100 g of water. Is this solution saturated, unsaturated, or supersaturated?  
\_\_\_\_\_

6.) A saturated solution of  $\text{KClO}_3$  is formed from one hundred grams of water. If the saturated solution is cooled from  $80^{\circ}\text{C}$  to  $50^{\circ}\text{C}$ , how many grams of precipitate are formed?

7.) What compound shows a decrease in solubility from  $0^{\circ}\text{C}$  to  $100^{\circ}\text{C}$ ? \_\_\_\_\_

8.) What is most soluble at  $10^{\circ}\text{C}$ ? \_\_\_\_\_

9.) What is least soluble at  $50^{\circ}\text{C}$ ? \_\_\_\_\_

10.) What is least soluble at  $90^{\circ}\text{C}$ ? \_\_\_\_\_

11.) Using Table G, describe a situation where a solution may be considered saturated but not concentrated.

---

---

12.) What will happen to a saturated solution if you add more solute?

---

---

13.) What will happen to an unsaturated solution if you add more solute?

---

---

14.) What will happen to a supersaturated solution you add more solute?

---

---